

I Claim:

1. A receiver circuit for a push-pull transmission method, comprising:

at least one first input for receiving a first input signal;

at least one second input for receiving a second input signal;

an output providing an output signal dependent on the first and second input signals;

a detector circuit having a first signal detector connected to said first input and a second signal detector connected to said second input, said first and second signal detectors comparing amplitudes of the first and second input signals in each case with a detection threshold and providing detector output signals including a first detector output signal from said first signal detector and a second detector output signal from said second signal detector, said first and second signal detectors each having a control input for setting the detection threshold, said control input of said first signal detector being coupled to an output of the second signal detector and said control input of said second signal detector being coupled to an output of said first signal detector; and

a signal processing circuit connected to said detector circuit and receiving the detector output signals, said signal processing circuit generating the output signal according to the detector output signals.

2. The receiver circuit according to claim 1, wherein said first and second signal detectors have a first detection threshold or a second detection threshold according to a signal present at said control input.

3. The receiver circuit according to claim 1, wherein said first and second signal detectors are Schmitt triggers with an adjustable upper switching threshold.

4. The receiver circuit according to claim 1, wherein said signal processing circuit has an edge spacing evaluation unit for detecting predetermined edges of the detector output signals and provides further output signals dependent on the detector output signals and on a temporal spacing between a predetermined edge of the first detector output signal and a predetermined edge of the second detector output signal.

5. The receiver circuit according to claim 4, wherein said edge spacing evaluation unit has a first asymmetric delay element receiving a first signal dependent on the first detector output signal and the second detector output signal,

and a second asymmetric delay element receiving a second signal dependent on the second detector output signal and the first detector output signal, said first and second asymmetric delay elements forwarding first edges of the first and second signals with a first delay time and second edges of the first and second signals with a second delay time.

6. The receiver circuit according to claim 5, wherein said first and second asymmetric delay elements forward falling edges of the first and second signals with a greater delay time than rising edges.

7. The receiver circuit according to claim 1, wherein said first and second inputs are two of a plurality of inputs connected to said detector circuit, said detector circuit having a plurality of signal detectors each connected to one of said inputs, said control input of a respective one of said signal detectors having applied to it a signal dependent on output signals of other ones of said signal detectors.

8. A method for detecting a first signal and a second signal in a push-pull transmission method, which comprises the steps of:

comparing the first and second signals in each case with a detection threshold having a first value;

reducing the detection threshold to a second value; and

comparing one of the first and second signals with the detection threshold having the second value after the other of the first and second signals has reached the detection threshold with the first value.

9. The method according to claim 8, which further comprises increasing the detection threshold to the first value for comparing with the one signal after the other signal has reached the detection threshold having a third value.

10. The method according to claim 8, which further comprises setting the first value to be greater than the second value.

11. The method according to claim 9, which further comprises setting the third value to be less than the first and second values.

12. A receiver circuit for a push-pull transmission method, comprising:

a first input for receiving a first input signal;

a second input for receiving a second input signal;

an output providing an output signal dependent on the first and second input signals;

a detector circuit connected to said first input and said second input and providing detector output signals dependent on a comparison of the first and second input signals with a detection threshold, said detector output signals include a first detector output signal and a second detector output signal; and

a signal processing circuit coupled to said detector circuit and said output, said signal processing circuit receiving the detector output signals and generating the output signal according to the detector output signals, said signal processing circuit having an edge evaluation unit for detecting predetermined edges of the detector output signals and providing intermediate signals dependent on the detector output signals and on a temporal spacing between a predetermined edge of the first detector output signal and a predetermined edge of the second detector output signal.

13. The receiver circuit according to claim 12, wherein said edge evaluation unit has a first asymmetric delay element receiving a first signal dependent on the first detector output signal and the second detector output signal, and a

second asymmetric delay element receiving a second signal dependent on the second detector output signal and the first detector output signal, said first and second asymmetric delay elements forwarding first edges of the first and second signals with a first delay time and second edges of the first and second signals with a second delay time.

14. The receiver circuit according to claim 12, wherein said first and second asymmetric delay elements forward falling edges of the first and second signals with a greater delay time than rising edges.